



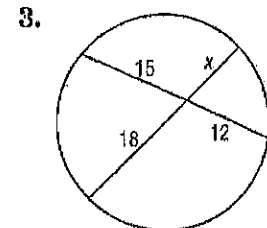
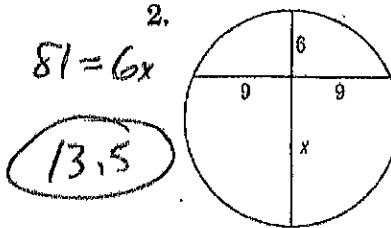
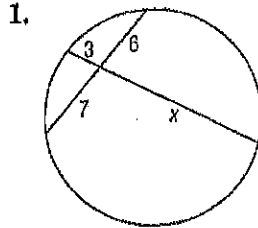
# 10-7 Skills Practice *Key*

## Special Segments in a Circle

Find  $x$  to the nearest tenth. Assume that segments that appear to be tangent are tangent.

$$3x = 42$$

$$(14)$$



$$15 \cdot 12 = 18x$$

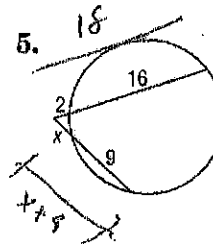
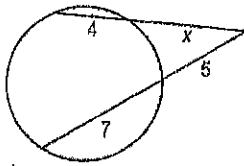
$$(10)$$

$$(4+x)x = 60$$

$$x^2 + 4x - 60 = 0$$

$$(x+10)(x-6) = 0$$

$$x = 6$$

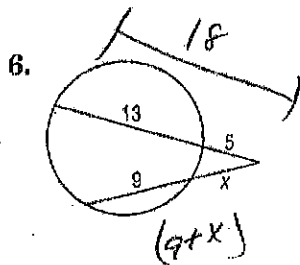


$$x(x+9) = 18 \cdot 2$$

$$x^2 + 9x - 36 = 0$$

$$(x+12)(x-3) = 0$$

$$(3)$$

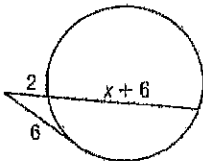


$$x(x+9) = 5 \cdot 18$$

$$x^2 + 9x - 90 = 0$$

$$(x+15)(x-6) = 0$$

$$(6)$$

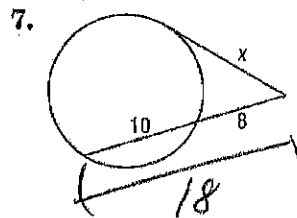


$$36 = 2(x+8)$$

$$2x + 16 = 36$$

$$2x = 20$$

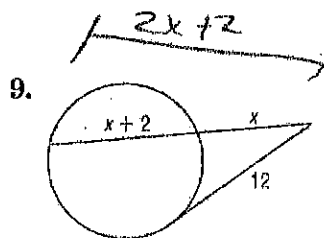
$$x = 10$$



$$18 \cdot 8 = x^2$$

$$144 = x^2$$

$$x = 12$$



$$x(2x+2) = 12^2$$

$$2x^2 + 2x = 144$$

$$2(x^2 + x - 72) = 0$$

$$2(x+9)(x-8) = 0$$

$$(8)$$